

The Longest Deluge: Swollen Waters Take Time to Recede

PHOTO FEATURE ON FLOOD



Rajarbag: Totally inundated.

— Star photo by Enamul Haq



Baridhara: As if in a stream.

— Star photo by Anisur Rahman



Sabujbag: In waist-deep water.

— Star photo by Anisur Rahman



Shyampur: Too deep to wade through.

— Star photo by A K M Mohsin

Flood Review

by M A Matin

SO the flood peak of 1998 flood has hit Dhaka on 11/9/1998 at a flood level of 7.24 m/PWD. This level is just 5 cm below the forecast level of 7.29 issued on 7/9/1998 by the writer and published on 9/9/1998 in The Daily Star.

A forecast of flood level with an accuracy of plus/minus 5 cm and a lead-time of 5 days should be quite useful for a city like Dhaka with a great stake for flood fighting to save flood dike protecting millions of people.

This same technique, a simple gauge to measure correlation with a little bit of knowledge of propagation of flood wave in the river system was used to forecast the flood level at Dhaka during 1988 flood also and proved highly successful.

Now that the flood is receding and there is very little chance of developing another flood it is of interest to make forecast of how long it will take for the flood to recede. A correlation developed with flood recession data of flood years of 1931, 1954, 1955, 1974, 1987, 1988 shows that days required for the Buriganga to fall below danger level may be computed by the regression equation [days required-peak level x 5.92-27.89]. This year the Buriganga attained the peak level of 7.24 on 11/9/1998 and according to the regression the Buriganga will need 15 days to fall below danger level, that is by the end of September. This is a relief from flood condition but more days will be required for

the agricultural land to be free from inundation.

I think it would be appropriate to discuss the role of tide from the bay to delay the flood drainage from Bangladesh. During the monsoon although general sea level rises due to monsoon wind setup, the high monsoon flow of the major rivers pushes the tidal effect (particularly the horizontal tide i.e. the reversal of flow) towards the sea. Chandpur is quite inland and the passage of flood wave to the sea is complicated by the effect of tide — and I mean normal tide. As the flood wave propagates towards sea the flow is retarded increasingly by the process of tidal lockage twice in a day by the high tide.

We know, in all rivers, water level has to rise to allow passage of high flow from upstream. This is true at Bahadurabad or at Hardinge Bridge far inland and is equally true at Chandpur where the river has to allow passage of combined flow of the three major rivers. The low tide at Chandpur (at present low tide is comparatively quite high) is a manifestation of high flow from the major rivers rather than the effect tide from the sea. That much of low tide (water level) at Chandpur is necessary to have sufficient flow area of the river section for the passage of peak flood flow.

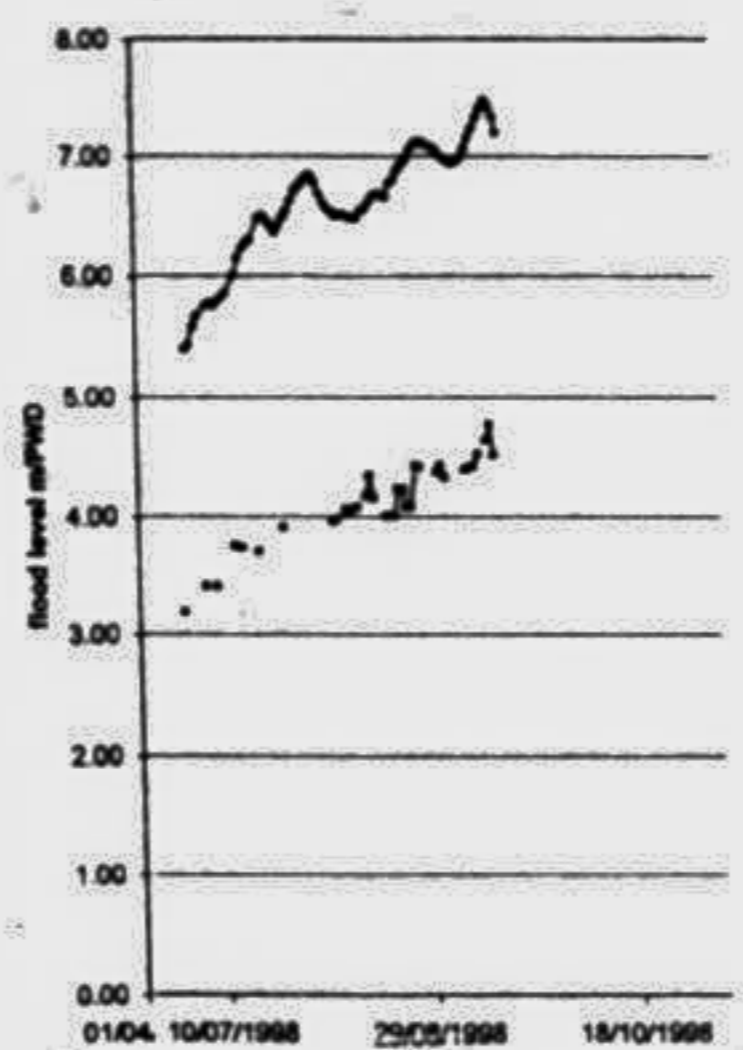
tides from the sea-face during the flood season is however necessary to understand the complex interaction of tide and passage of flood flow.

The high low-tide level at Chandpur is thus a creation of river hydraulics of the passage of flood flow at Chandpur rather than any abnormal behaviour of tide in the bay. The high low tide at Chandpur has however a big implication in the flooding of low areas around Dhaka and the upper Meghna having a very flat slope.

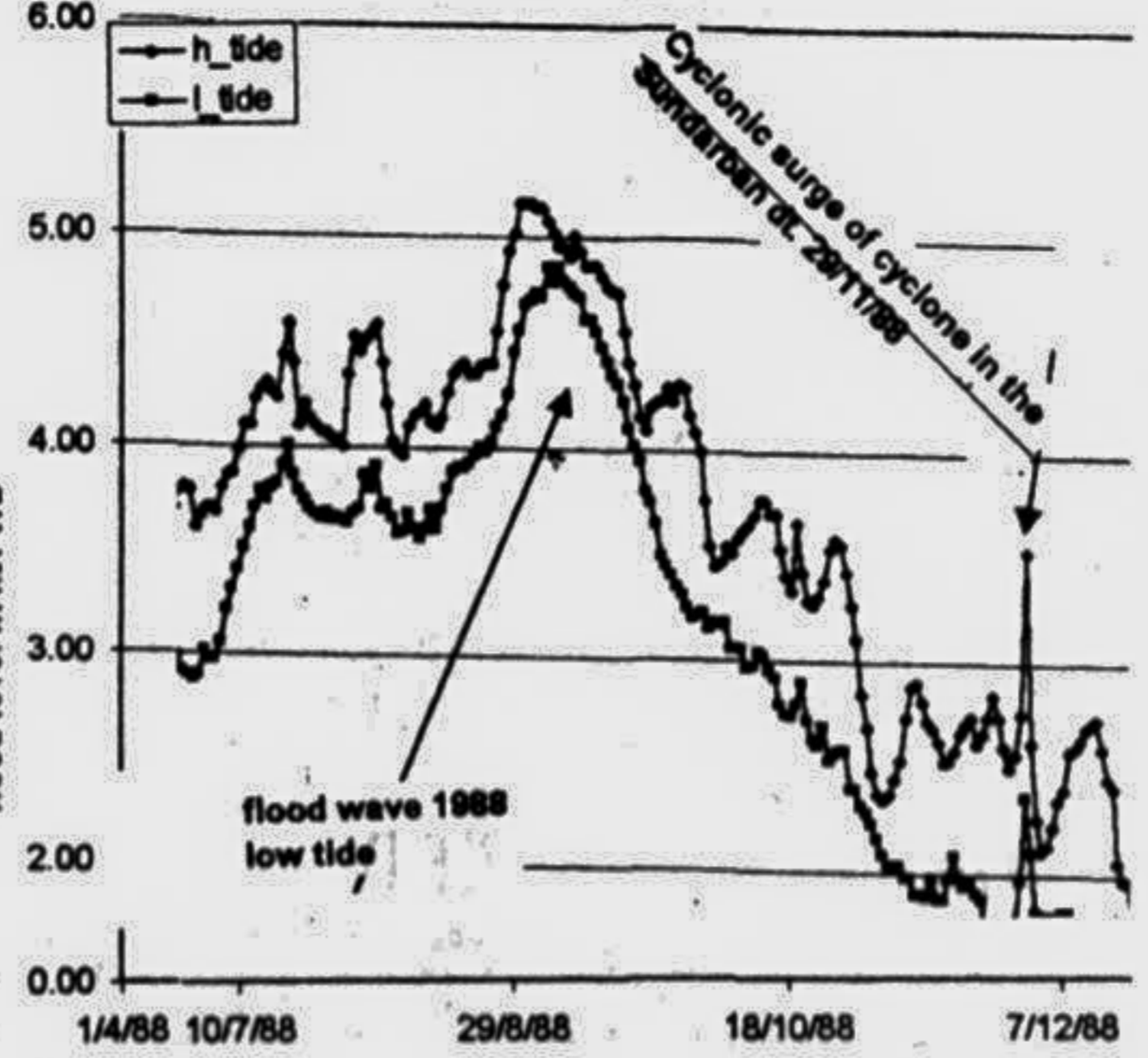
Let us have a look at the flood level hydrograph at Bhagyakul, Chandpur and Daulatkhana for the year 1988. The flood wave represented by the low tide has more or less the same appearance at Bhagyakul and Chandpur but transforms into normal tide curve at Daulatkhana near the sea face. The locations are shown in the map. In lower Meghna estuary the flood flow quickly subsides through many branches of the estuary.

During 1988 the flood recession was quite normal and Chandpur had the highest low tide of 4.86. This year the highest low tide at Chandpur was 4.77 as shown and I do not think that there is anything abnormal has happened in the behaviour of tides at Chandpur. Arrangement of monitoring of

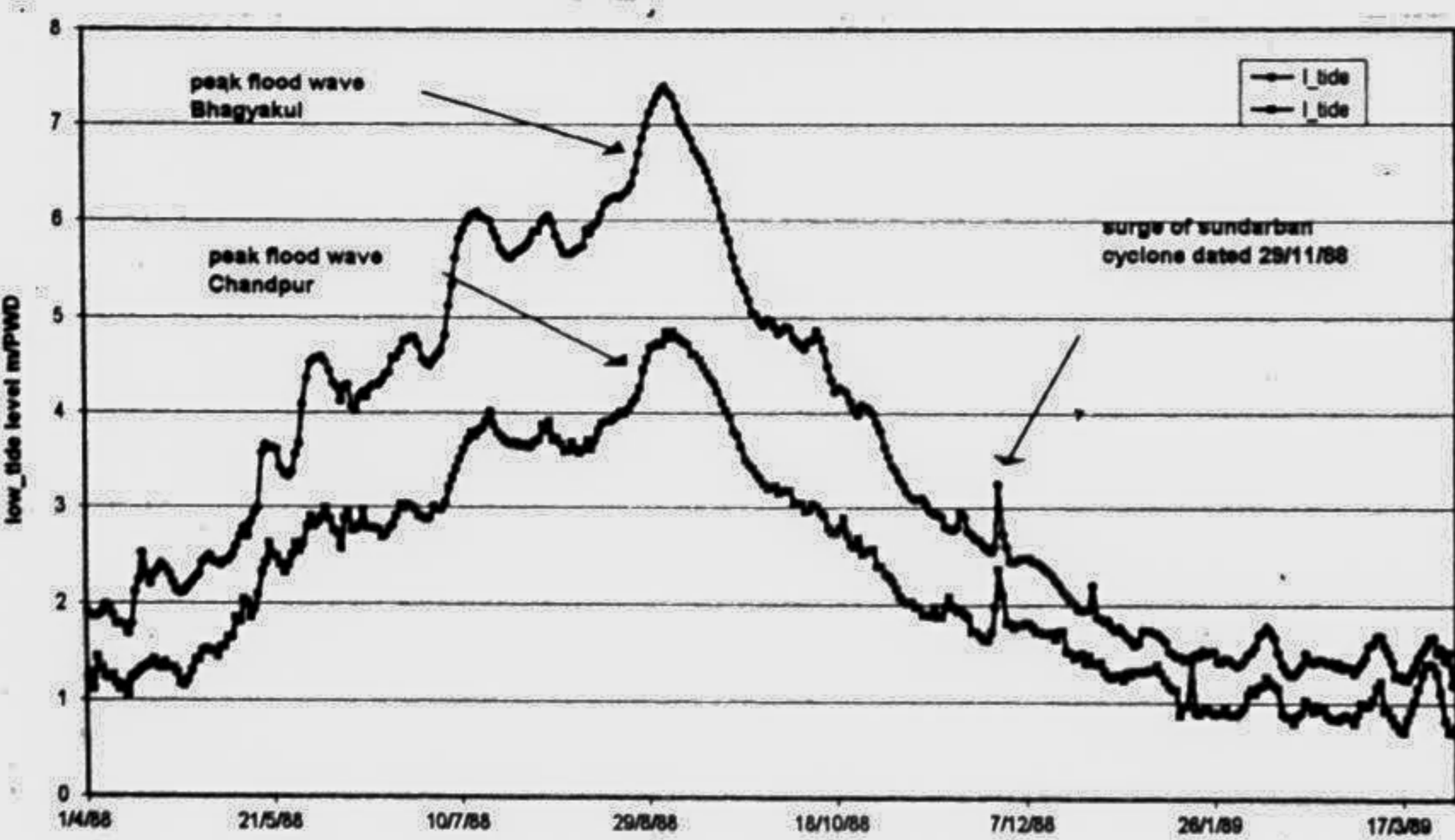
Meghna at Bhagyakul and Chandpur 1998 flood



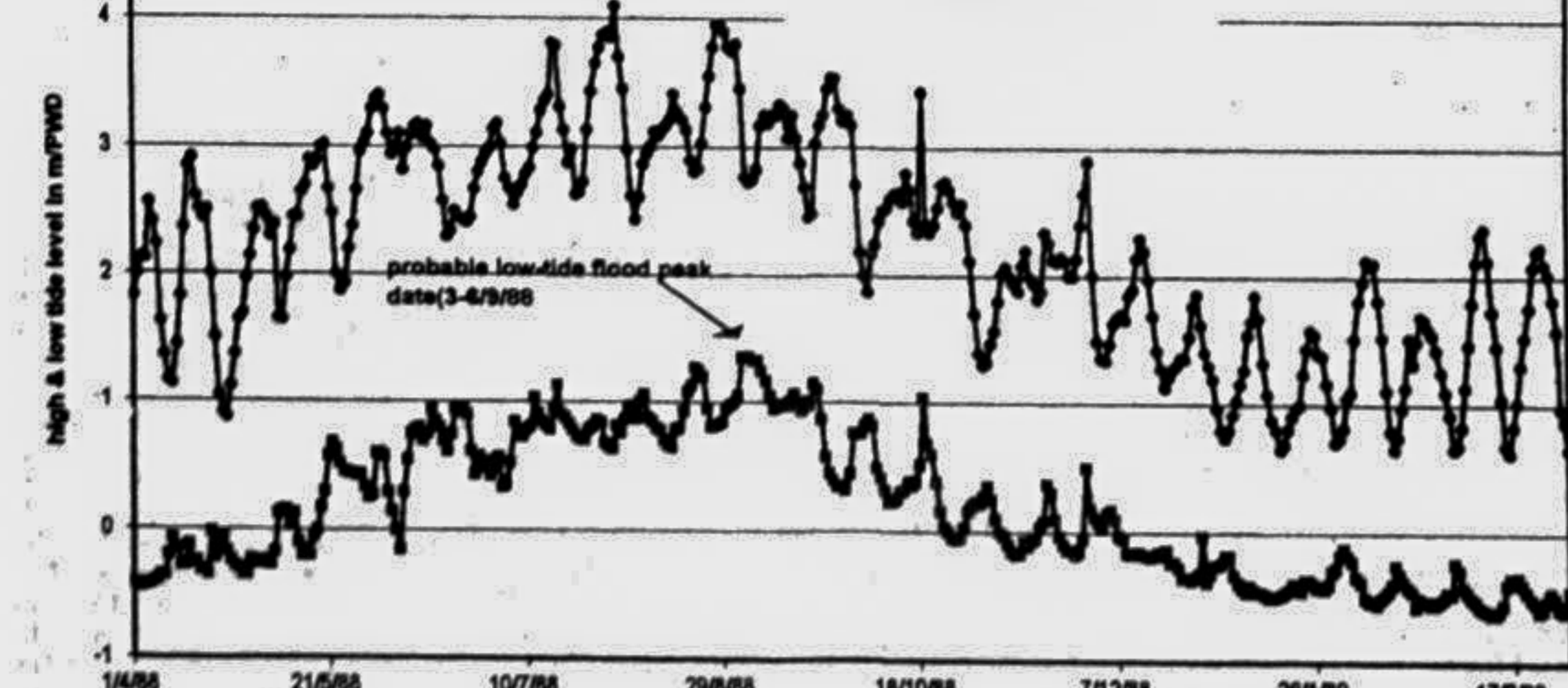
Meghna at Chandpur 1988 flood



Meghna at Bhagyakul & Chandpur 1988 flood low-tide level



Meghna at Daulat Khan 1988 flood



Monastic Revival Helps the Desert Bloom

Egypt's Christian monasteries were once home to thousands of monks, seeking communion with God and leading an ascetic existence in the desert. They fell into decline but are now making a small come-back, reports Gemini News service, maintaining Egypt's unique contribution to as aspect of Christian spirituality.

Dale Gavlak writes from Wadi Natrun, Egypt

THE decline of Egypt's ancient Christian monasteries appears to have been halted, with an increase in the number of men applying to be monks.

"We are receiving many applications," says Father Sadrak of St. Bishoy, a desert area 65 kilometres north-west of Cairo. "But we cannot accept all the people because we do not have enough places."

One of the factors behind the revival is an increase in religious fervour, among Christians and Muslims alike.

Numbers will be further boosted by a Coptic Church ruling in June that monks should not stay longer than six years in service as teachers or preachers outside their monastery.

Egypt's Coptic Church, which has an estimated five million followers, traces itself back to the first century after Christ, and resisted the Islamisation that followed the Arab invasion of the country.

The monastic tradition began with St Anthony towards the end of the third century after Christ, and for hundreds of years men have sought a life of solitude and communion with God in the vast Egyptian desert — though even the desert is not as remote as it once was. The construction of the Cairo-Alexandria road in 1936, bisecting the desert, and the resthouse at Wadi Natrun, helped destroy the monks' cherished isolation.

Wadi Natrun once boasted 50 monasteries, each drawing 2,000 to 3,000 monks. About 95,000 lived an ascetic existence at St Anthony's Monastery in the Eastern Desert.

But times changed. Thirty years ago, St. Marcarius, one of the four Wadi Natrun monasteries, was down to six old monks and had fallen into disrepair.

Now, however, the number of monks in the four monasteries is gradually rising again, and currently varies from 80 to 140.

At St Marcarius, 100 monks and 700 employees use drip irrigation to grow olive, orange, mango and palm trees on 2,000 feddans of land (a feddan is 4,200 square metres), and raise cows and chickens. The monks provide all the establishments' food and sell milk, cheese, yogurt, eggs, and olive oil.

"The monastery is self-sufficient," says Father Ireneus, a former pharmacist who has been a monk for 22 years. He has a flowing black beard and a long, black cassock. His hair is covered by a black hood covered in hand-embroidered crosses etched in beige.

Like all the monks, Father Ireneus has taken the three main vows of chastity, poverty and obedience. They also choose a new first name and adopt the name of the monastery's founding father as their surname.

To join a monastic order, a man must be a single adult who has finished his education and military service. He should be without infectious diseases and not be fleeing from justice or social problems. He should, in other words, be a man who could earn a living and live a normal life outside the monastery, but who prefers a life of prayer and single-minded devotion to God.

Candidates are encouraged to visit the monastery for one to three years, after which they may be accepted as a novice for three years.

During that time, they decide whether or not the monastic life is for them. The monks take the final decision whether or not to accept the novice.

Many of the monasteries date to the 4th and 5th century AD, as monks initially lived in desert caves or tiny cells. With increased numbers, they constructed churches, halls, dormitories and towards.

During the ninth century, high walls were built, enclosing the monasteries to ward off invaders.

The churches contain priceless frescos and paintings as well as rare architectural features.

The main chapel at St. Bishoy, for example, has enormous 14th century doors which open and close with two simple pins on either end — the same system used in pharaonic temples.

The monks have also preserved the Coptic language in the daily liturgy. The language served as a bridge between Pharaonic and Greek in reading the inscription on the Rosetta stone, found by Napoleon's soldiers in 1799. Its inscription in several languages made it possible to decipher hieroglyphics.

Songs of worship have been handed down from generation to generation, and some are probably similar to tunes used in the funerals of ancient pharaohs.

The writer is a print and radio journalist.

Egypt's Christian Copts

- Adherents: 5m. Millions of others live in US, Canada, Australia
- Claim to be original Egyptian descendants of Pharaonic civilisation, hundreds of years before Arab invasions and Islam
- Succeeded from the rest of the Christian Church in AD 451 as result of religious dispute



Coptic revival began after President Nasser's death in 1972.

"We will not accept humiliation in our own country. Martyrdom is preferable to living a life of humiliation"

— Pope Shenaula